

DESCRIPTIONS OF NEW AUSTRALIAN PLANTS, WITH
OCCASIONAL OTHER ANNOTATIONS ;

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(*Continued.*)

PHYLLANTHUS HYPOSPODIUS.

Tall, throughout glabrous ; petioles quite short ; leaves very large, almost distichous, chartaceous, ovate- or elliptic-lanceolar, thinly venulated, on the surface dull-green, beneath whitish-grey ; staminate flowers minute, on very short pedicels, each cluster accompanied by one or two pistillate flowers of larger size ; outer sepals almost ovate, inner more orbicular and slightly longer ; stamens six, their anthers roundish and nearly as long as their filaments ; style hardly any ; stigmas three, channelled or flattened, undivided, finally rigid ; fruit rather large, short-pedicellate, trigonous-globular ; seeds oblique-nephroid, but also somewhat triangular, smooth, outside whitish and faintly marked by a pale-brownish lineolation.

On the Russell-River ; Stephen Johnson.

Shrub, attaining a height of 14 feet. Leaves to 4 inches long and 2 broad, flat, entire. Sepals pale-coloured. Anthers disconnected. Ripe fruit measuring $\frac{1}{3}$ inch diametrically, and quite as high as broad, many times longer than its sepals, brownish outside. Seeds nearly $\frac{1}{6}$ inch long.

The whiteness on the lower page of the leaves as well as their form and size has our new species in common with the Sumatran *P. hypoleucus*, of which however the carpologic characteristics are very different.

WENDLANDIA BASISTAMINEA.

Branchlets appressedly almost sericiously pubescent ; leaves on short petioles or almost sessile, chartaceous, mostly ovate-lanceolar, short-acuminate, at the base rounded-blunt, above nearly glabrous, beneath particularly along the costules and venules beset with very short hairlets ; stipules almost deltoid, incised at the apex, soon deciduous ; panicles with cymous or fasciculate flowers, appressedly short-pubescent ; lobes of the calyx deltoid-semilanceolar ; corolla-tube about thrice as long as the calyx-lobes, sparingly puberulous inside, slightly constricted at the upper end ; corolla-lobes nearly glabrous, not much shorter than the tube ; stamens fixed close to the base of the corolla and nearly as long as its tube, completely enclosed, as well as the style glabrous ; dehiscence of fruit more readily loculicidal than septicidal ; seeds minute, ovate, outside brown and reticular-rough.

On Russell's River ; Stephen Johnson.

Leaves simply opposite, to 5 inches long, to $1\frac{3}{4}$ inches broad, flat, paler and often brownish beneath. Panicle terminal, inclusive

of the peduncle seldom above 2 inches long. Pedicels to $\frac{1}{3}$ inch long, but often much shorter. Bracts minute, linear-semilanceolar. Corolla hardly $\frac{1}{4}$ inch long, its lobes five, oval, distinctly imbricate, but only slightly twisted before expansion. Filaments very short. Anthers comparatively large, fixed above the finally bi-lobed base, upwards narrowly ellipsoid. Fruit about $\frac{1}{8}$ inch long and nearly as broad, slightly protruding beyond the calyx-tube, short-pubescent at the summit. Placentaries expanded into two narrow divaricate plates. The blunt-based leaves, the short panicle with flowers more conspicuously pedicellate and the corolla-tube thickest towards the middle distinguishes this species already from the majority of its congeners, whereas the situation of the stamens separates at once the Australian one from all others, unless—as in *W. psychotroides*—a dimorphism should occur also in this new *Wendlandia*, the state with exserted stamens then yet remaining unknown.

The discovery of a *Wendlandia* as Australian does not come altogether unexpectedly, because I had previously shown the genus to occur in New Guinea; the species there, *W. buddleacea*, is however very different from that of Queensland just described in the form of its leaves, in the disposition of its flowers and in the placement of the stamens, though the corolla is similar as well in shape as in size; but the only Papuan species, as yet known, may be identical with one of the Indian, although seemingly not with *W. paniculata*, to which De Candolle adscribes nearly sessile leaves and Sir J. Hooker rounded calyx-lobes. Nevertheless the variability of the species of *Wendlandia* may be far greater, than hitherto admitted, particularly also through biformous flowers; indeed these plants can effectually be dealt with for fixing their diagnoses only by studies in their native homes, the carpologic characteristics deserving also yet closer attention.

To the genus *Wendlandia* as a second Australian species is referable *Oldenlandia psychotroides*, as I now find the preflourescence of the corolla-lobes to be broadly imbricate. It is remarkable among congeneric plants already for the broad yet very short tube of the corolla, barely as long as the lobes. The reliable generic differences between *Rondeletia* and *Wendlandia* require also yet further to be contrasted.

WRIGHTIA BACCELLIANA.

Branchlets densely beset with spreading hairlets; leaves on very short petioles, from subcordate- to lanceolar-ovate, seldom quite lanceolar, narrowly acuminate, above scantily but beneath more copiously bearing short hairlets; flowers rather small, in axillary and terminal short cymes, occasionally only three together or even fewer, extensively beset with short spreading hairlets; segments of the calyx lanceolar, pointed, devoid of conspicuous

inner appendages ; corolla red, its tube hardly reaching beyond the calyx, its lobes glabrous, about equal in length to the tube, orbicular- or cordate-rhomboid ; coronula divided into numerous linear- or spatular-elliptic and glabrous segments ; stamens fixed above middle of the corolla-tube, perfectly enclosed ; anthers disconnected ; pistil glabrous, the stigma nearly as long as the style, ovate-conical, annular-turgid at the base, bi-mucronulate at the apex.

On Russell's River, in forests of *Agathis Palmerstoni* ; Stephen Johnson.

Branchlets rather robust, somewhat laxly spreading, their indument greyish. Leaves of firm texture, to 5 inches long, to 2 broad, the primary venules beneath prominent. Cymes seldom above 1 inch long, usually paired when axillary. Bracteoles narrow and pointed. Flowers ornamental, probably fragrant. Calyx about $\frac{1}{4}$ inch long, its form unusual within the genus. Tube of the corolla pubescent outside, much narrowed downward, constricted at its termination ; lobes amply overlapping each other. Segments of the five coronular lobes fascicled in several rows. Filaments very short. Anthers yellowish, glabrous, gradually pointed, minutely bi-lobed at the base, about one-tenth inch long. Fruit as yet not obtained ; nevertheless the place of the plant in the genus, to which it has been allotted, seems hardly doubtful, though the position of the anthers is abnormal, so that a generic division or perhaps full genus (*Endostemon*) might be constituted for placing this plant systematically. The unappendiculate calyx and the enclosed anthers pollen-bearing to the base would bring this plant to *Melodinus*, as a species of which I have distributed it ; but the venulation of the leaves does not accord, and the coronule is more developed. The generic position can finally be settled only when the fruit shall have been discovered.

Nearest to *Wrightia coccinea* in regard to the colour of the corolla, but that congener differs already in glabrous somewhat narrower and more gradually acuminate leaves, much larger and less numerous flowers, blunt calyx-lobes considerably exceeded by the corolla-tube, and only slightly divided coronular lobes. The general aspect of the plant is like that of *W. tinctoria*, which is however at once distinguished by frequent want of vestiture, by a white corolla with much narrower and longer lobes, also by a proportionately shorter tube.

This species of a medicinal genus of plants is offered from here as a floral homage to the clinical Professor Baccelli, in commemoration of the leading part taken by this great pathologist in the recent International Medical Congress of Berlin, and further for also phytologic felicitation in his so worthily being called to the high presidential office of the forthcoming universal gathering in Rome.

CALOCHILUS HOLTZEI.

Rather tall; basal leaf elongated, stem-leaves usually three, very much shortened or bract-like; raceme long, with numerous flowers; pedicels soon somewhat longer than the bracts; lower calyx-lobes ovate-lanceolar, the upper one usually broader, verging into a deltoid-roundish form; lateral petals obliquely lanceolar-elliptical, fully as long as the calyx-lobes and with these lightly greenish-brown; labellar petal doubly as long as the others, rhomboid-ovate, undivided, greenish, above densely beset and also ciliolar-fringed with reddish hair-like papillules, but glabrous at the deltoid apex, bearing near the middle of the base two straight vertical dark-bluish plates with prominent dark striae between them, but devoid there of glandules and of any protruding cross-line; gynostemium by about one-third shorter than the calyx-lobes; anther somewhat contracted upwards; rostellum semiovate, conspicuous; fruit ellipsoid.

Near Port Darwin; M. Holtze.

Height, to 3 feet. Tuber nearly $1\frac{1}{2}$ inches long. Basal leaf 4-10 inches long, $\frac{1}{4}$ - $\frac{1}{3}$ inch broad. Flowers to 20 in the raceme. Pedicels $\frac{1}{3}$ - $\frac{1}{2}$ inch long, or at last even longer. Bracts ovate-lanceolar, acuminate, incurved. Calyx-lobes about $\frac{1}{4}$ -inch long. Labellum glabrous at the base. Ripe fruit measuring fully $\frac{1}{2}$ inch in length, slightly broader towards the summit. The first representative of the genus from intra-tropical regions. It comes nearest to *C. paludosus*, but it is a larger plant, has a raceme from 1 to $1\frac{1}{2}$ feet long and a deltoid termination of the labellum, irrespective of the longer pedicels and of the petals equalling in length the calyx-lobes, in which respect this new congener differs also from *C. campester* and *C. Robertsonii*. Nevertheless, the specific limits of these plants have yet further to be traced by field-studies. *C. Robertsonii* extends to the Snowy River (John Cameron), the sources of the Werribee (Miss Champ), Maclaren's Vale (Miss Aldersey), Mt. Lofty (Tepper). *C. campester* occurs also at Port Arthur (Hon. Dr. Dobson), and the Freeman River. *C. paludosus* advances southward to Ulladulla (Baeuerlen). Mr. Holtze's last sending afforded also an opportunity of ascertaining the characteristics of the pollinia in what was lately described as *Eulophia Holtzei*; thus it becomes now clear, that this plant requires to be transferred to the section Apaturia of Pachystoma, the genus being new for Australia. The base of the gynostemium protrudes distinctly across the summit of the ovary, and for this reason also the plant is better brought under that genus than under Spathoglottis. The short rather thin and almost horizontal rhizome, further the less spreading calyx-lobes and petals, the form of the labellum, as also the much reflected fruit-pedicels, agree all best with Pachystoma—indeed, our plant is in many respects not unlike *P. pubescens*.

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